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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,802	02/17/2004	Stanislaw Kielbowicz	015258-062800US	1519

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TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER

AWAI, ALEXANDRA F

ART UNIT	PAPER NUMBER
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3663

DATE MAILED: 08/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/780,802	KIELBOWICZ, STANISLAW	
	Examiner	Art Unit	
	Alexandra Awai	3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>8/3/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. This application contains claims directed to the following patentably distinct species of the claimed invention:

Protective screen for screening off a suction space and a suction duct connected to it, in particular a suction space and a suction duct in an emergency cooling system of a nuclear power plant.

2. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable:

- A. Wherein the spaced outer and intermediate walls of the protective screen are not formed as double walls (Figs. 2 and 3).
- B. Wherein the spaced outer and intermediate walls of the protective screen are perforated and formed as double walls that are designed to form outflow gaps (Fig. 4).
- C. Wherein the spaced outer and intermediate walls of the protective screen are formed as double walls from two perforated, spaced apart walls that are closed off to form outflow gaps (Figs. 5a-5c).

3. Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable

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thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

4. During a telephone conversation with Georg Seka on 8/15/05 a provisional election was made with traverse to prosecute the invention of species C, claims 1-9. Affirmation of this election must be made by applicant in replying to this Office action.

Drawings

5. The drawings are objected to because the views provided in Figs. 2-4 are necessary for a clear disclosure of the invention, but do not show relevant details of the elected embodiment (e.g. perforation of all walls of the suction spaces, spacer elements within the double walls). Fig. 1 can be construed as generic to all embodiments. However, the bottom face of article 1a appears to be

in contact with article 4 in Fig. 2, while in Fig. 1, article 4 contacts article 1a only on the lateral side. This discrepancy must not appear in the corrected perspective view of the elected embodiment.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

6. The disclosure is objected to because of the following informalities:
- unclear or unconventional diction (e.g. “limiting value”, page 1; “space reasons”, page 2)
 - lack of punctuation, resulting in unclear language (e.g page 1, line 19; page 3, line 13)

Appropriate correction is required.

Claim Objection

7. Where claims 1 and 4 set forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation, 37 CFR 1.75(i). Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 5 recites the broad recitation "greater than 0.1 m", and the claim also recites "greater than 0.2 m", which is the narrower statement of the range/limitation.

10. Not every limitation within the claims has proper antecedent basis. For example, claim 3 recites the limitation "four sides" in reference to the screen pockets. In another example, claim 5 recites the limitation "intermediate walls". The sides of the screen pockets and the intermediate walls cannot be referred to in definite terms when the concepts of screen pocket sides and intermediate walls were not introduced within the claim, or within the claim it depends upon.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1-3 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Toshihiko (5,876,551).

Note that a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Claim 1, as well as its depending claims, are drawn to a protective screen *per se*. Therefore, it is the structure, rather than the orientation or disposition of the prior art that is pertinent to all following rejections.

Toshihiko discloses a filter member to prevent the intrusion of foreign matters into a coolant stream comprising the following:

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- at least one screen element having one side that faces the influx of fluid and another side facing in the opposite the direction, the efflux of fluid (Fig. 5);
- said screen wall being composed of at least one rectangular (and inherently modular) unit (Fig. 5) and constructed from sheet metal (column 5, lines 27-33);
- said units each containing a plurality of screen pockets formed by upward (Fig. 4, article 11) and downward (Fig. 4, article 13) protruding portions that can be described as bent walls;
- said pockets being surrounded by perforations (Fig. 4, article 12) through which fluid can flow, forming a structure analogous to applicant's outflow gaps.

Toshihiko therefore explicitly discloses every limitation recited in applicant claims 1, 2 and 9.

Claim 3 recites that the screen pockets are "surrounded on four sides by outflow gaps".

Fig. 2 illustrates that the perforations of the Toshihiko device may be formed such that they delineate four sides of each pocket or protrusion. The concave portions that bound these pockets define outflow gaps. The limitation of claim 3 is therefore disclosed by Toshihiko.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toshihiko (5,867,551) as applied to claims 1-3 and 9, and further in view of Matzner *et al* (5,483,564).

Matzner *et al* discloses a debris catching grid comprising the following:

- at least one screen element having one side that faces the influx of fluid and another side facing in the opposite the direction, the efflux of fluid (Fig. 8B);
- said screen wall being composed of at least one rectangular unit (Fig. 8B) that is made of metal of sufficient thinness to be termed sheet metal;
- said units each containing a plurality of elongated but substantially U-shaped screen pockets formed by upward and downward protruding portions (Fig. 7C, article 110);
- said pockets being surrounded by perforations (Fig. 7A) through which fluid can flow, forming a structure analogous to applicant's outflow gaps (note the arrows indicating the flow of fluid).

Matzner *et al* and Toshihiko in combination therefore disclose every feature recited in claim 4, as it would have been *prima facie* obvious to modify the Toshihiko device to have pockets that are surrounded by outflow gaps, but also are substantially U-shaped for the purpose of minimizing the pressure drop in the event that debris is caught in the filter element.

Regarding claim 5, in *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device. In the present case, claim 5 recites a suction pocket depth of 0.1 m or more, while the geometry for the pockets of the Matzner *et al* is more broadly claimed. However, given

that the object of the debris catching grid is the same as that disclosed for the applicant's invention, it is not patentably distinct according to the preceding case law.

Regarding claim 6, any one of the aforementioned protrusions may be construed as a wall, and by virtue of its bent nature, which gives it two side faces and a narrower top face, it may be taken as a double wall. Because each of these walls is perforated, the area beneath the wall is defined as an outflow gap. It would have been obvious to one skilled in the relevant art to modify the conical protrusions of the Toshihiko device to more closely resemble the double walls of the Matzner *et al* invention, in order to minimize the pressure drop in the event that debris is caught in the filter element.

15. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over either one of Toshihiko (5,876,551) as applied to claims 1-3 and 9 and Matzner *et al* (5,483,564) as applied to claims 4-6, and further in view of Ho *et al* (5,080,699).

The relevant features of the Toshihiko and Matzner *et al* inventions have already been described, with the exception of spacer elements. Matzner *et al* shows that it is old and advantageous in the art to use spacer elements for components of a nuclear reactor, such as the fuel rods (column 2, line 29). Spacer elements are mechanically simplistic tools, and it would have been *prima facie* obvious to modify the screens of the primary references to have spacer elements, in order to improve the structural integrity of the double walls. Neither of the primary references teaches a connection means for the cassette units. Ho *et al* discloses a plurality of filter cartridges that are fixed relative to each other by a housing (Abstract). It would have been obvious to one of ordinary skill in the relevant art at the time of the invention to secure the filter

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members or debris catcher units of the primary references together so that the screen wall element is not only of the desired size, but also of robust construction.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexandra Awai whose telephone number is (517) 272-3079.

The examiner can normally be reached on 8:30-5:00 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on (571) 272-6878. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AA
August 24, 2005


JACK KEITH
PRIMARY EXAMINER
SPE 3663